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FIG.1

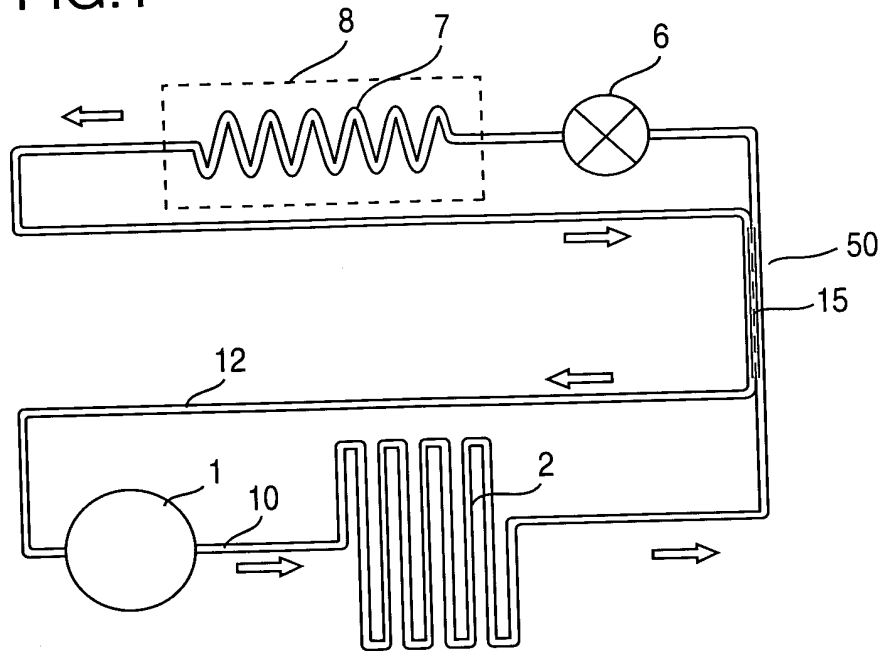


FIG.2A

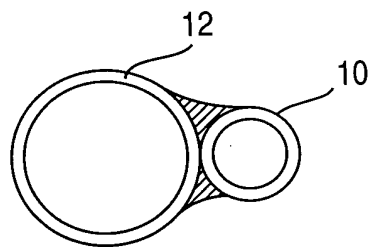
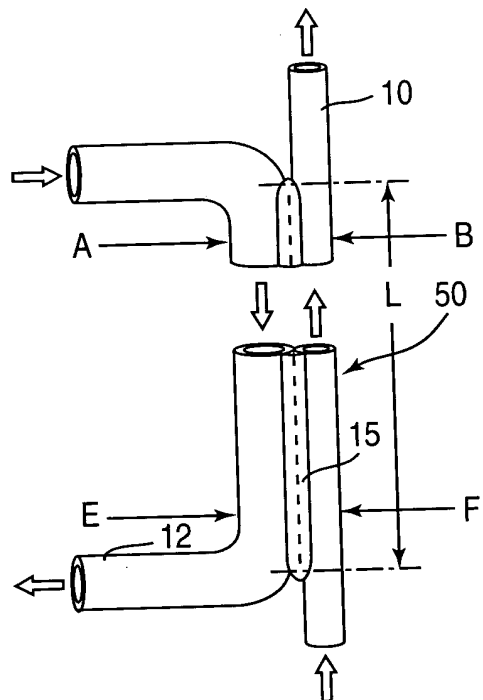


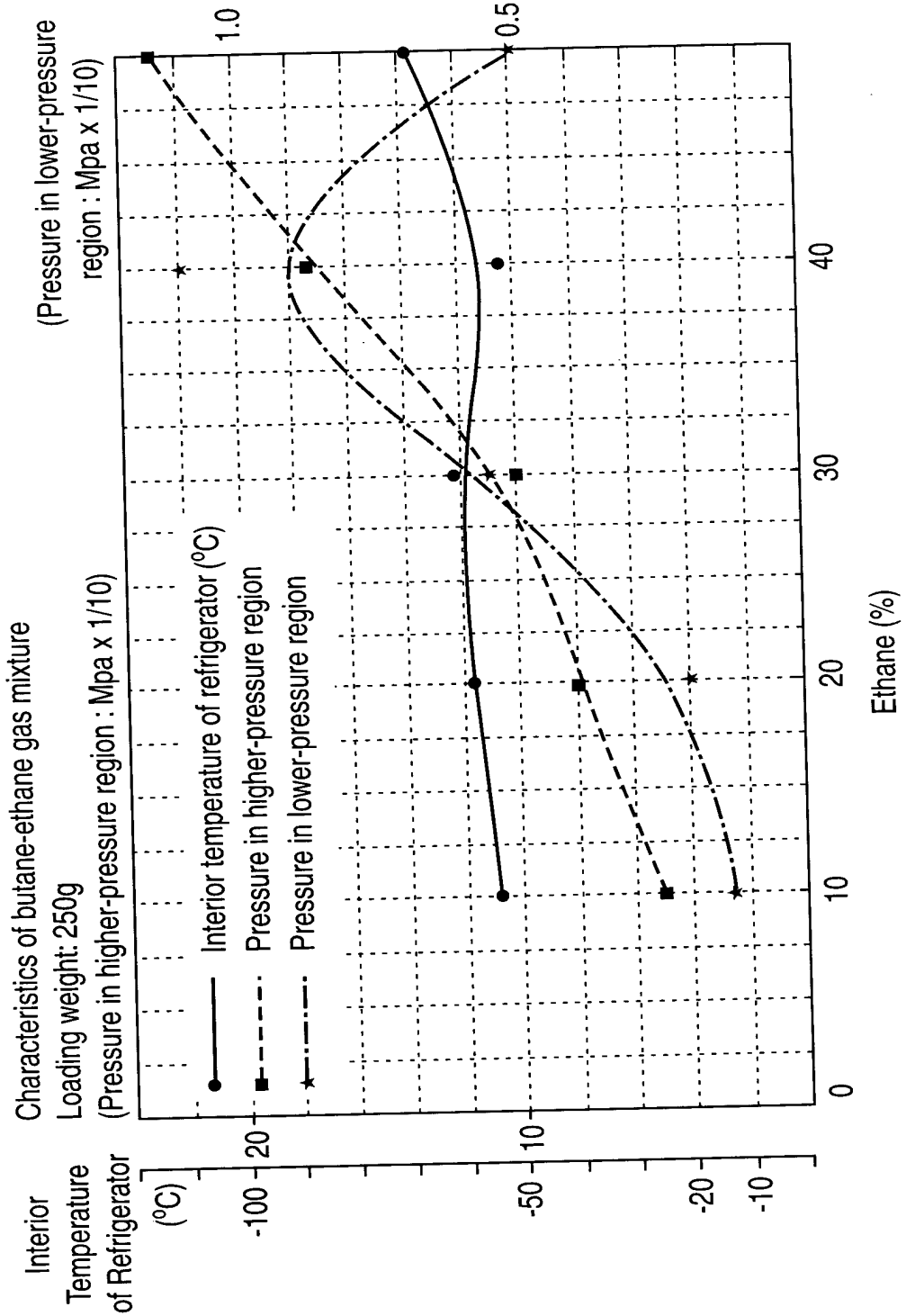
FIG.2B



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FIG.3

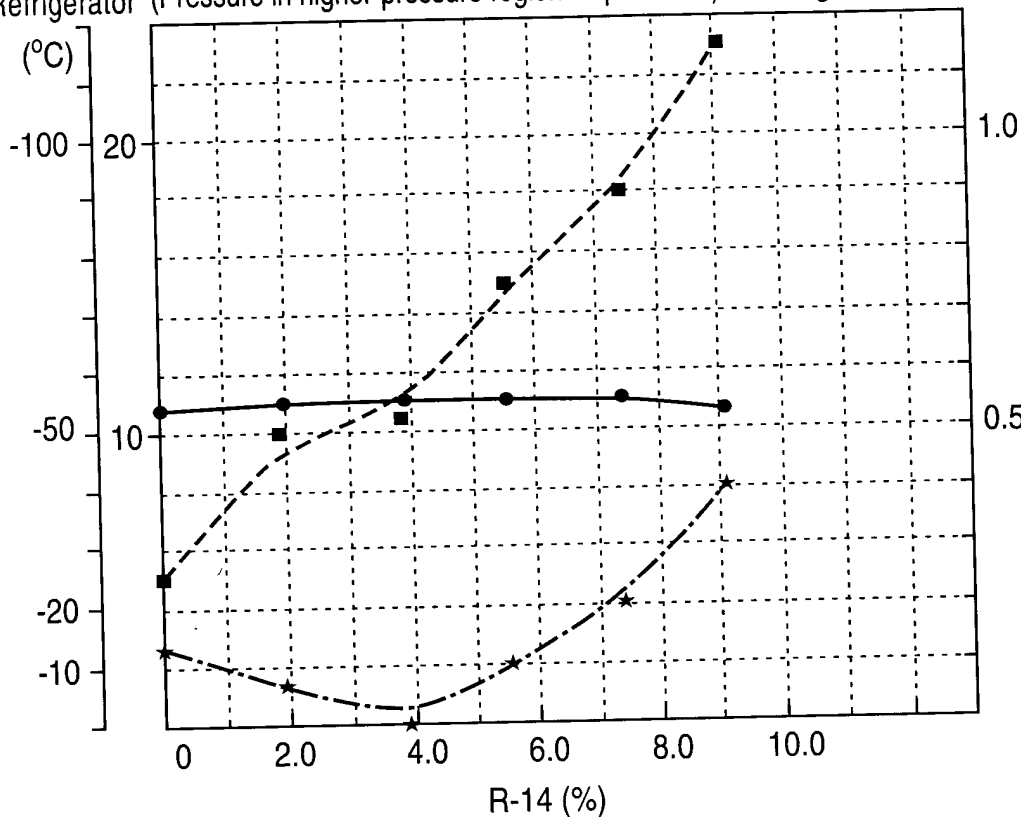


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FIG.4

Interior Temperature of Refrigerator (°C)  
 Butane / Ethane / R-14 ternary mixture  
 Butane-ethane : 90/10 (loading weight : 250g)  
 (Pressure in higher-pressure region : Mpa x 1/10)  
 (Pressure in lower-pressure region : Mpa x 1/10)



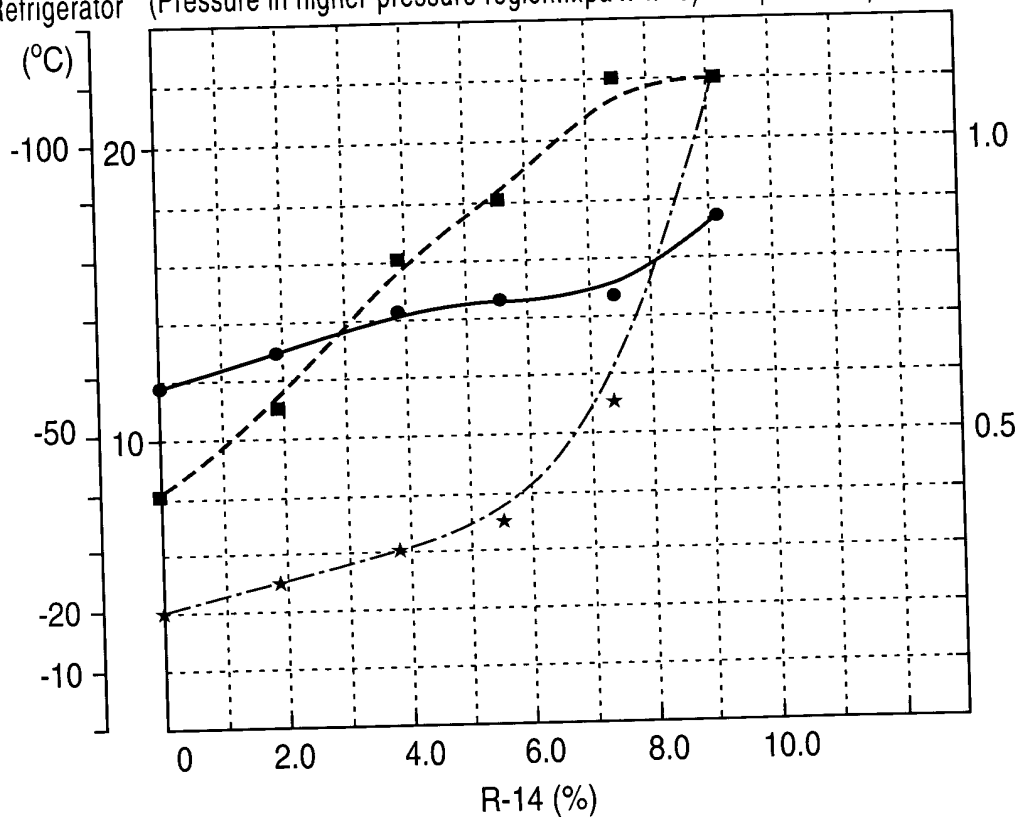
- — Interior temperature of refrigerator (°C)
- - - - Pressure in higher-pressure region
- ★ - . - Pressure in lower-pressure region

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FIG.5

Interior Temperature of Refrigerator  
Butane / Ethane / R-14 ternary mixture  
Butane-ethane : 80/20 (loading weight: 250g)  
(Pressure in higher-pressure region: Mpa x 1/10)  
(Pressure in lower-pressure region: Mpa x 1/10)

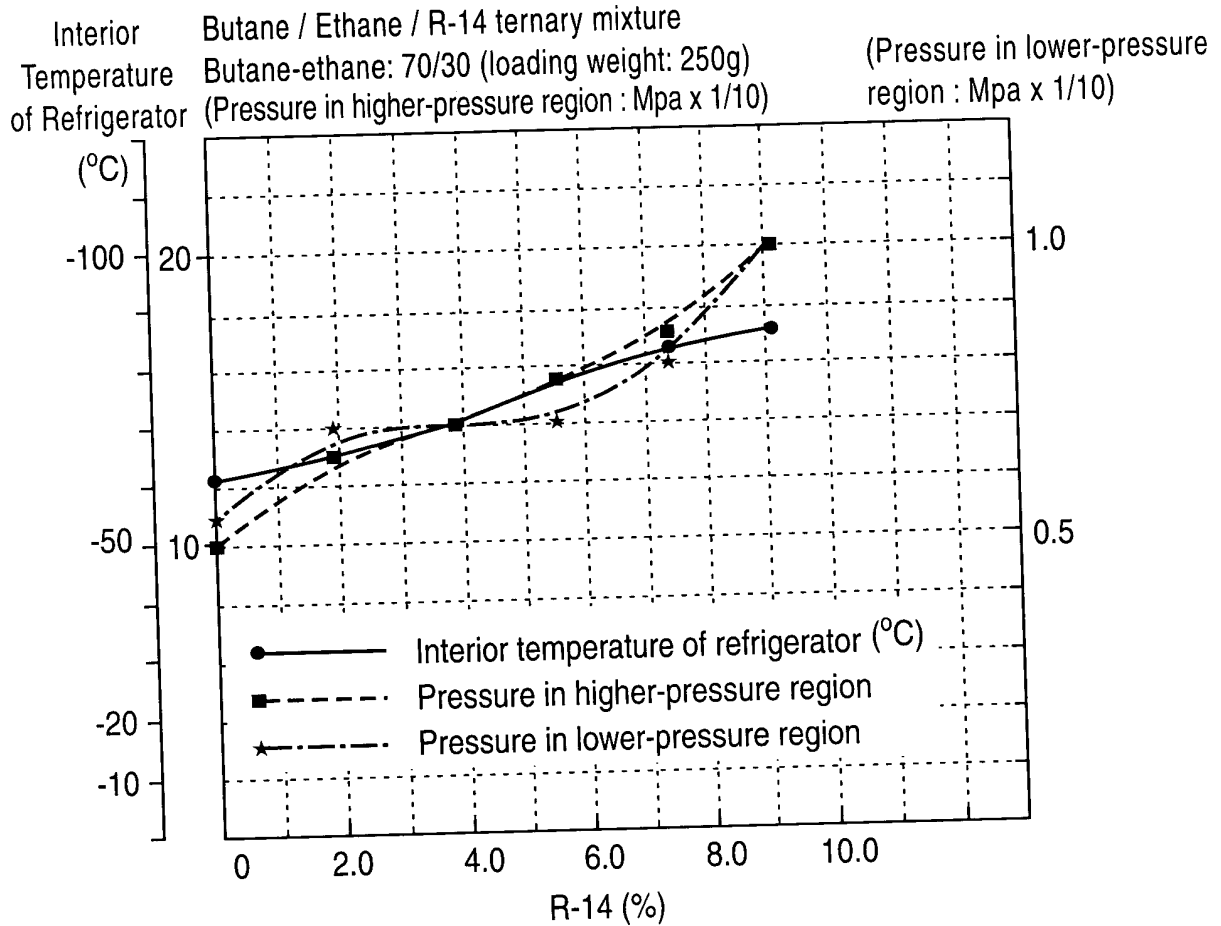


- — Interior temperature of refrigerator (°C)
- - - - Pressure in higher-pressure region
- ★ - . - Pressure in lower-pressure region

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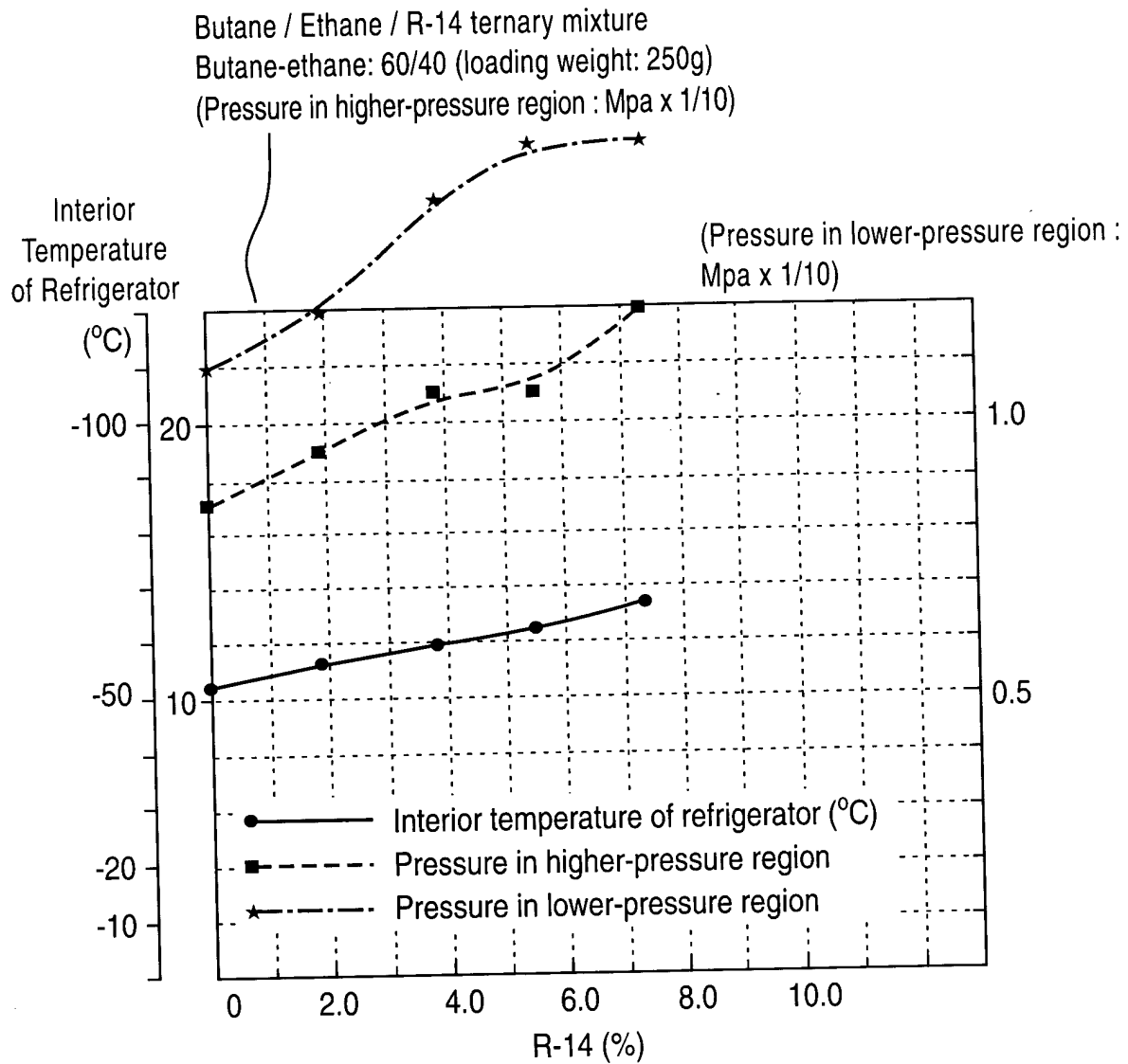
FIG.6



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FIG.7

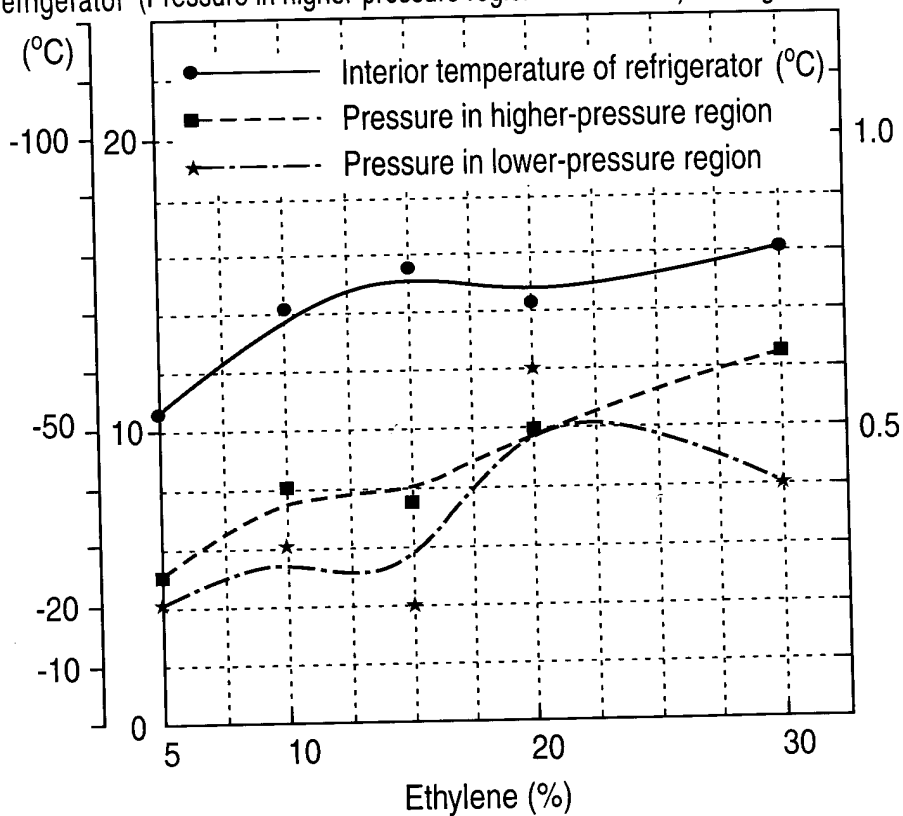


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FIG.8

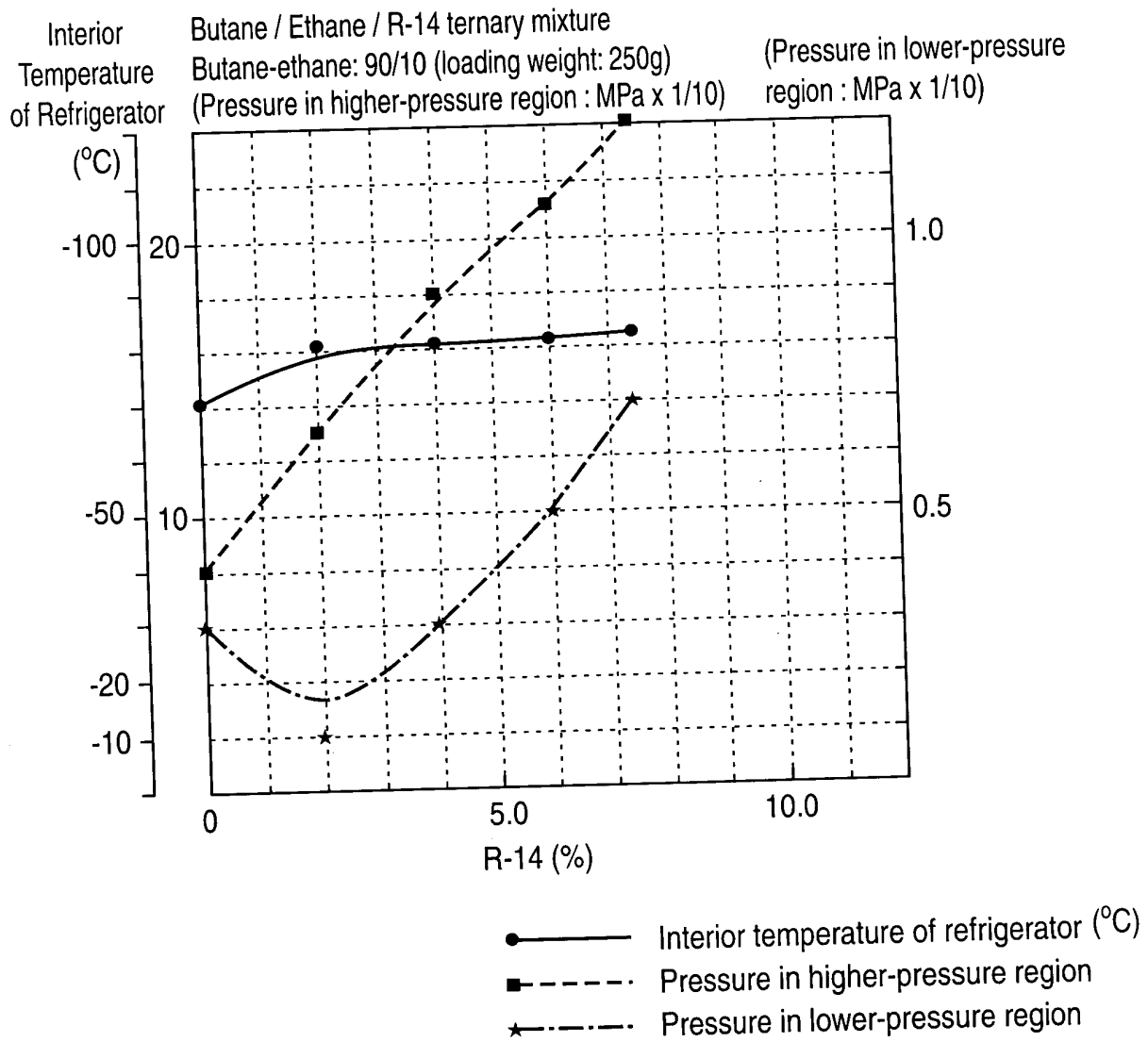
Interior Butane / Ethylene binary mixture  
Temperature loading weight: 250g  
of Refrigerator (Pressure in higher-pressure region: MPa x 1/10) (Pressure in lower-pressure region : MPa x 1/10)



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FIG.9



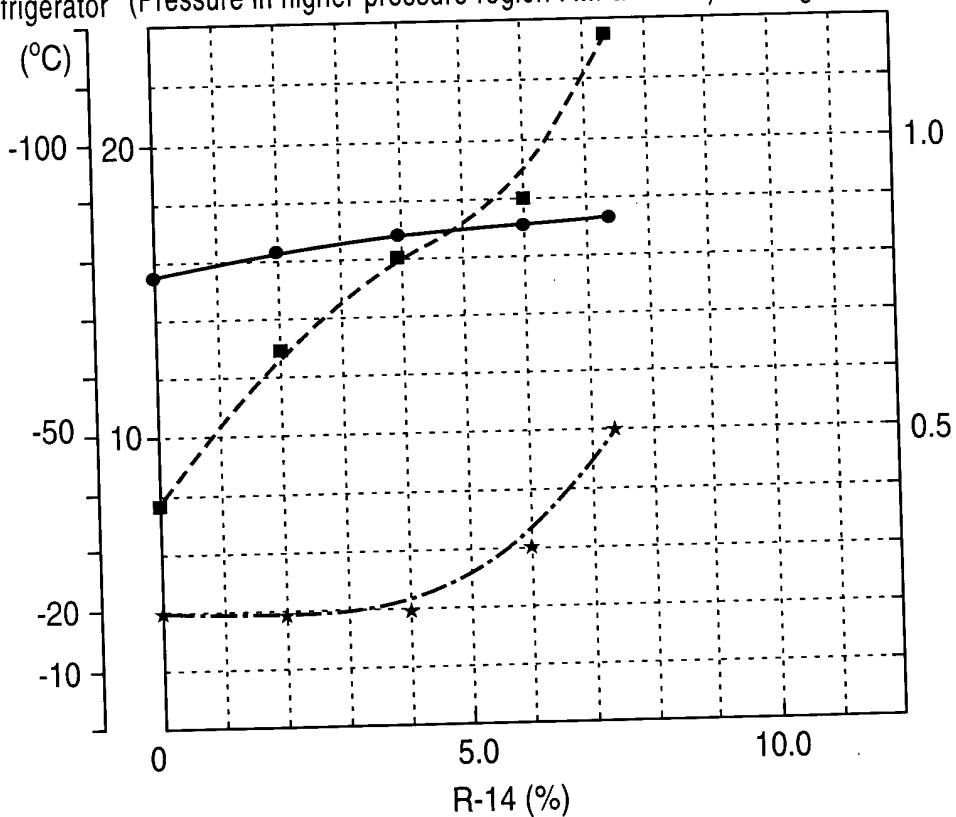


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FIG.10

Interior Temperature of Refrigerator (°C)  
Butane / Ethane / R-14 ternary mixture  
Butane-ethane: 85/15 (loading weight: 250g)  
(Pressure in higher-pressure region : MPa x 1/10)  
(Pressure in lower-pressure region : MPa x 1/10)



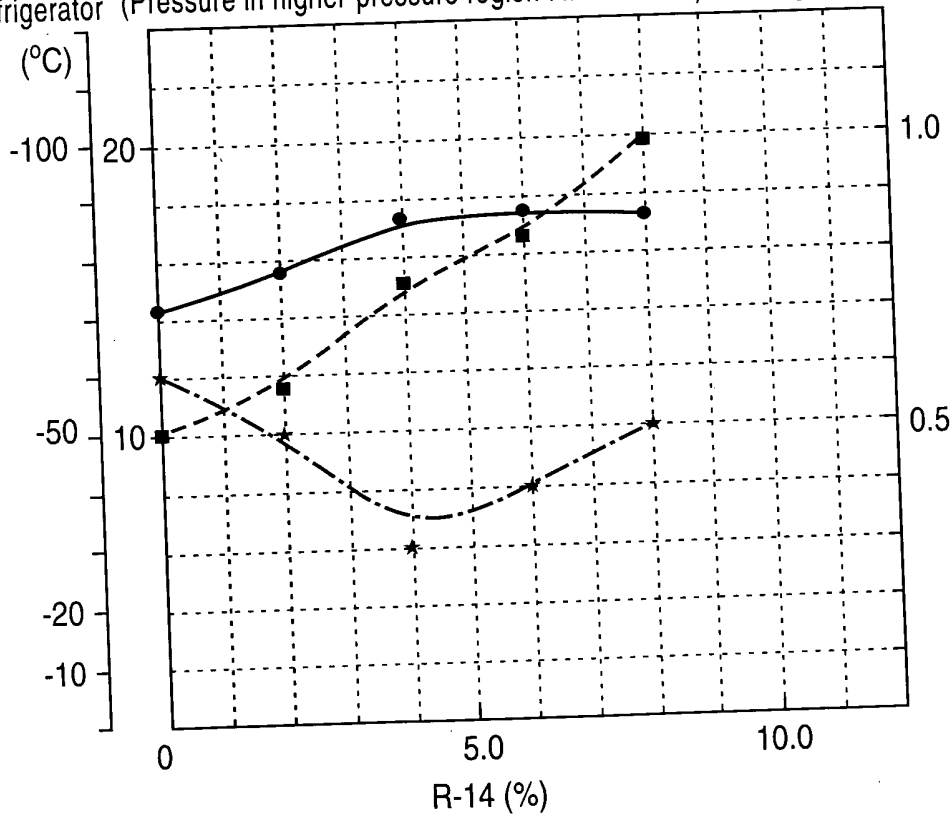
- Interior temperature of refrigerator (°C).
- - -■- - - Pressure in higher-pressure region
- · - · -★- · - · Pressure in lower-pressure region

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FIG.11

Interior Temperature of Refrigerator (°C)  
Butane / Ethane / R-14 ternary mixture  
Butane-ethane: 80/20 (loading weight: 250g)  
(Pressure in higher-pressure region : MPa x 1/10)  
(Pressure in lower-pressure region : MPa x 1/10)

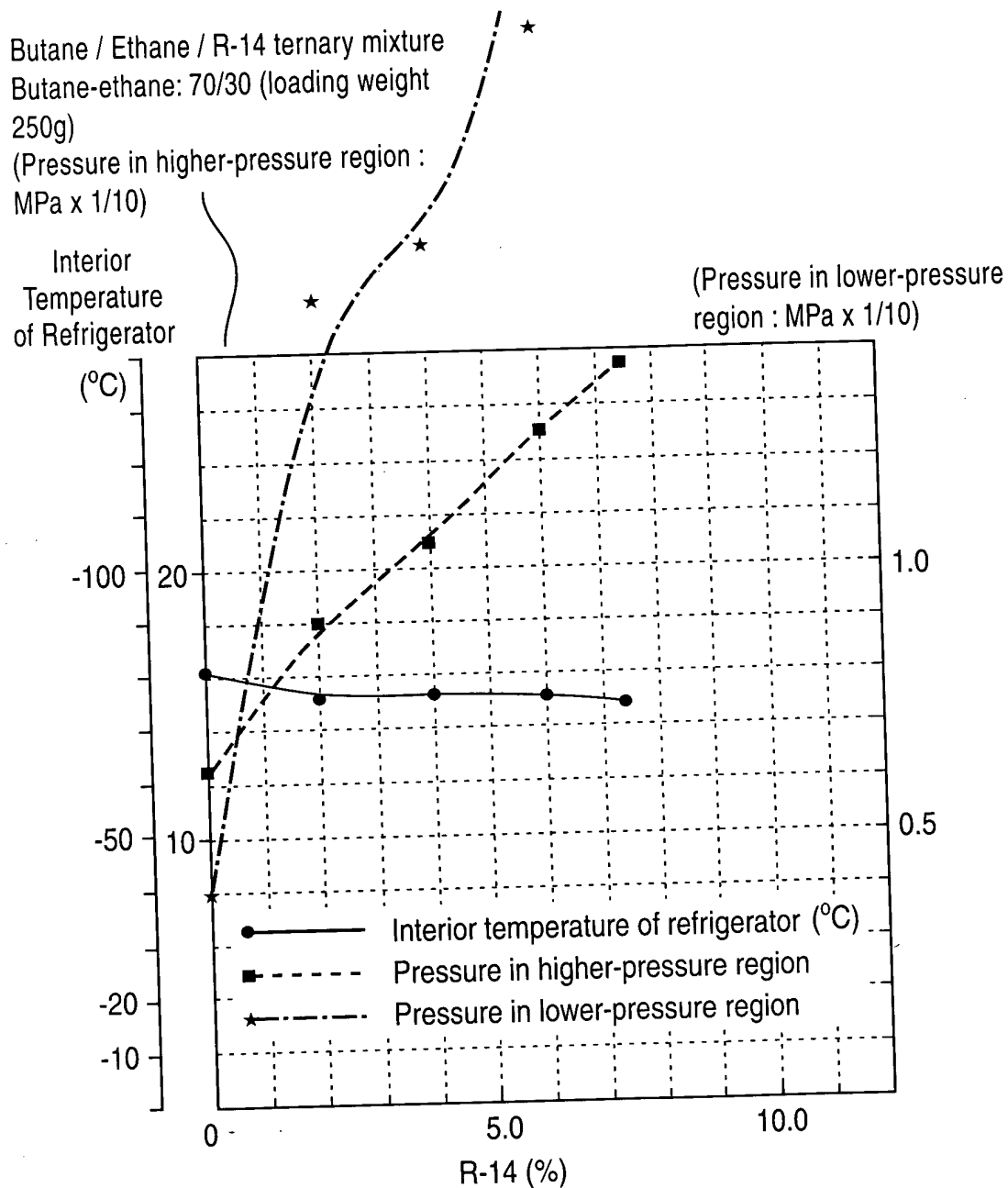


- — Interior temperature of refrigerator (°C)
- - - - Pressure in higher-pressure region
- ★ - . - Pressure in lower-pressure region

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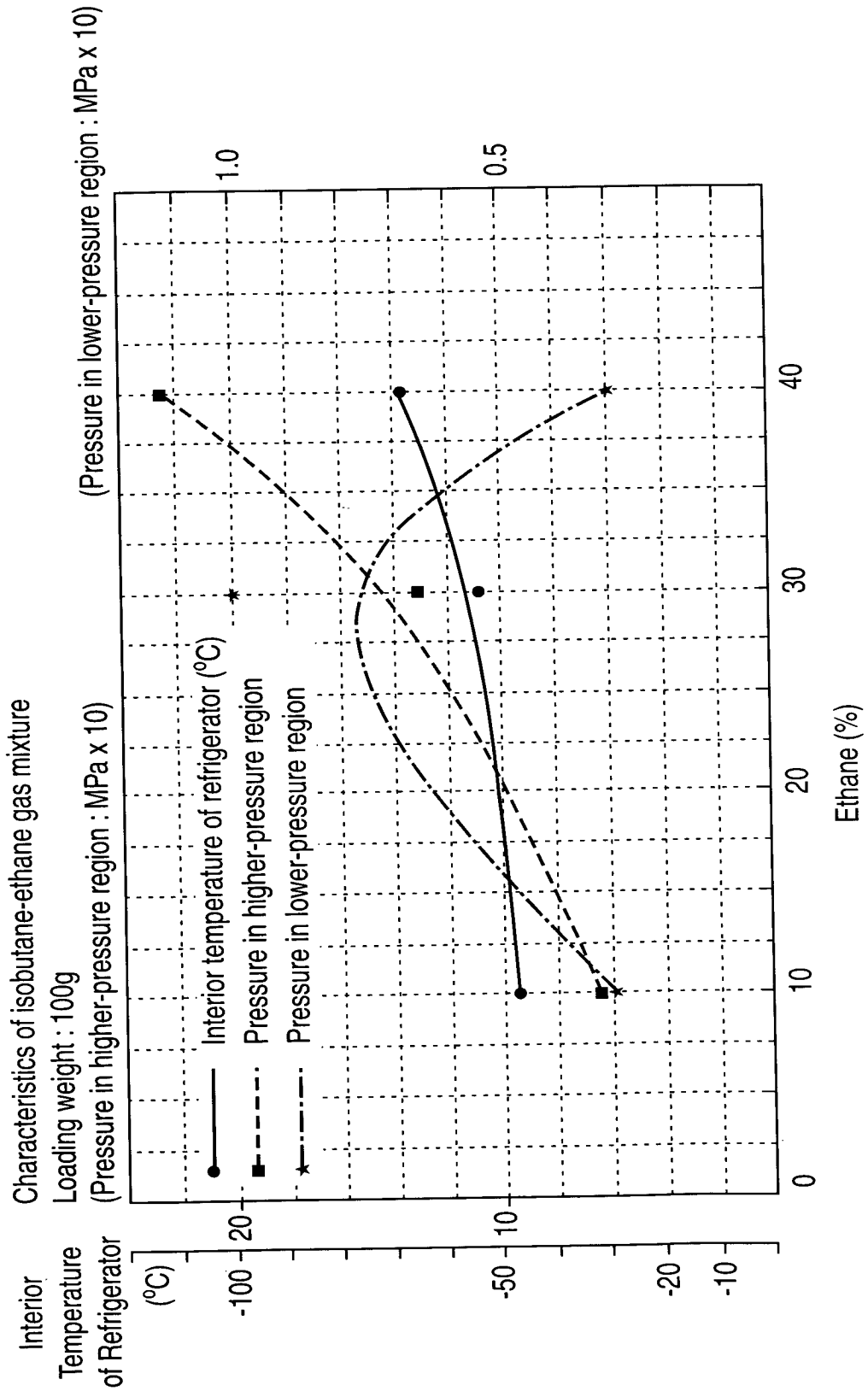
FIG. 12



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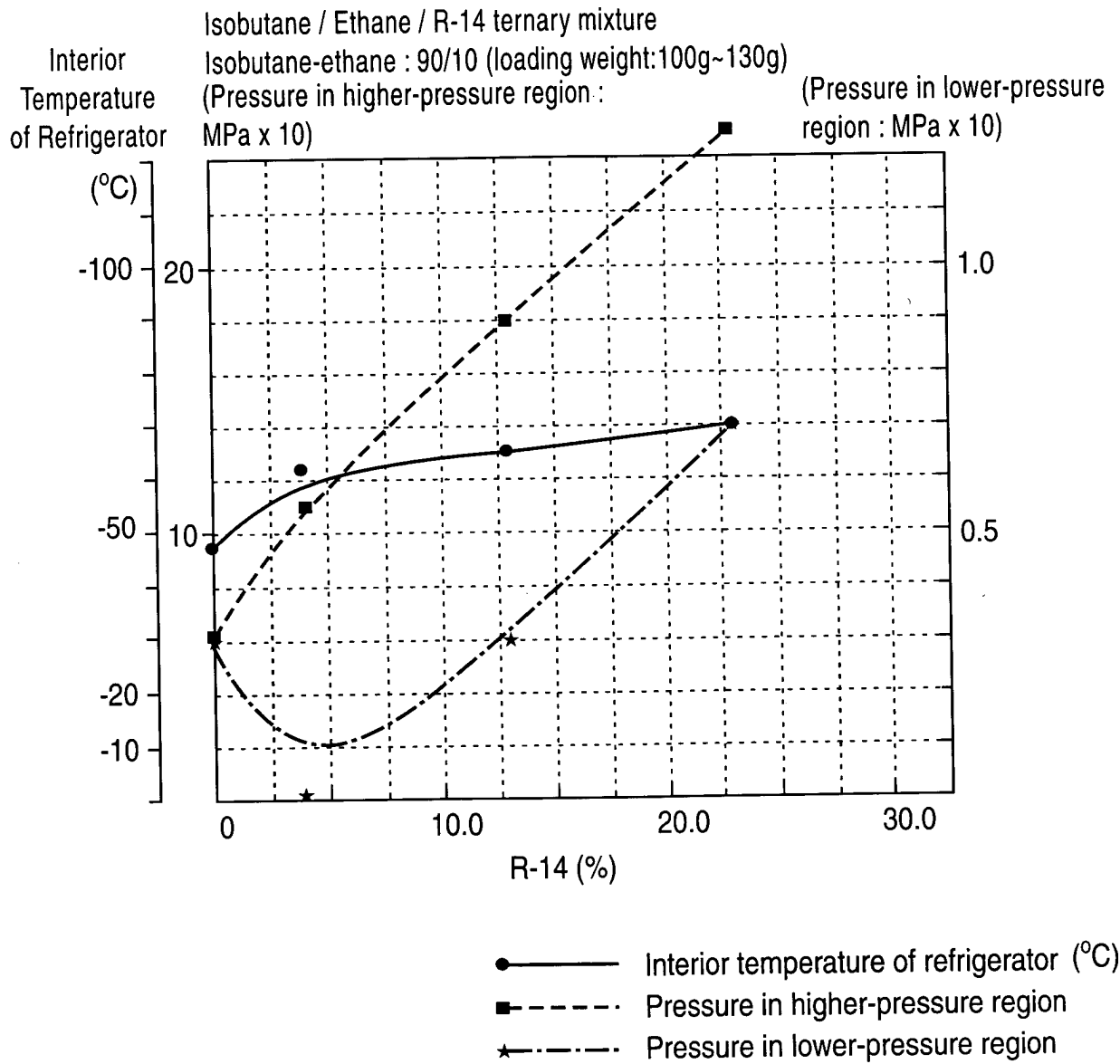
FIG.13



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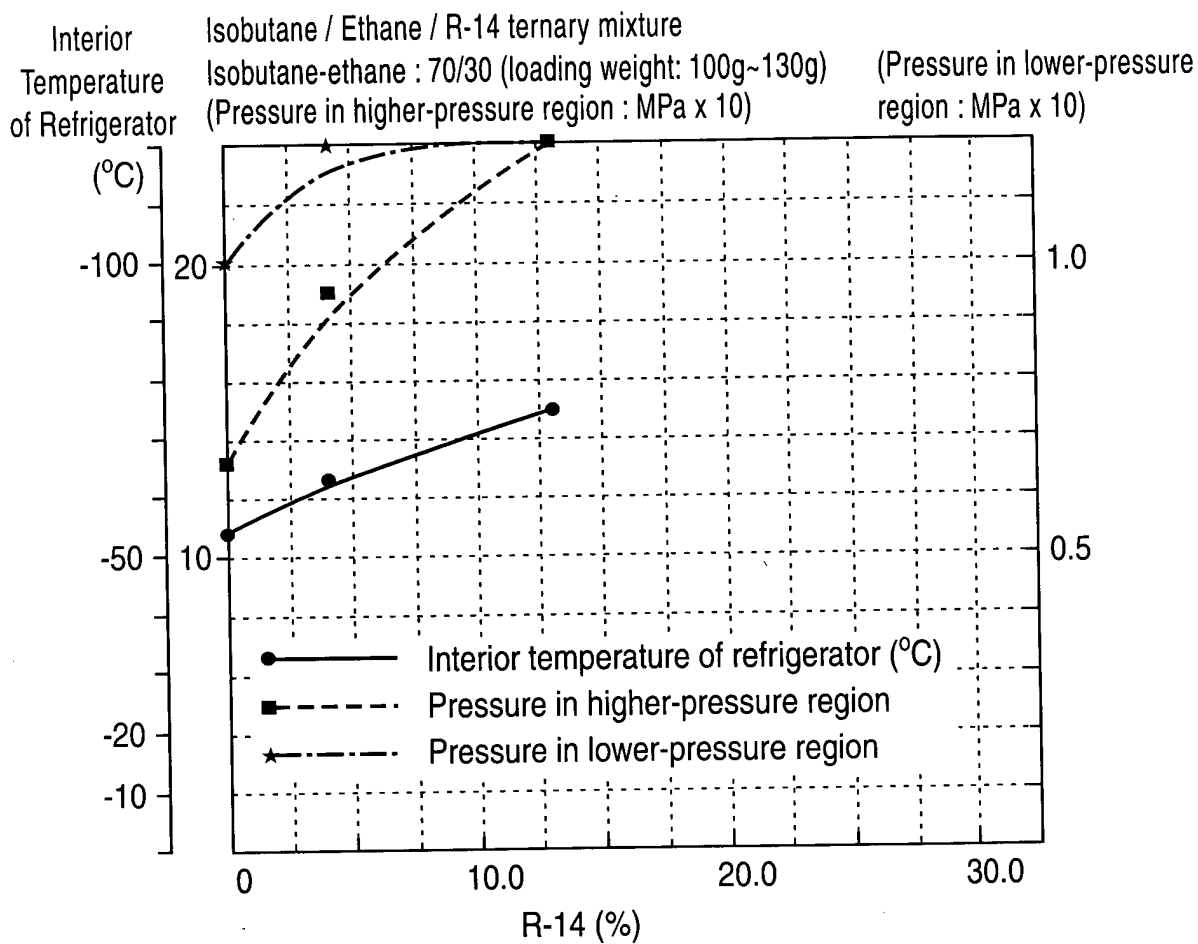
FIG.14



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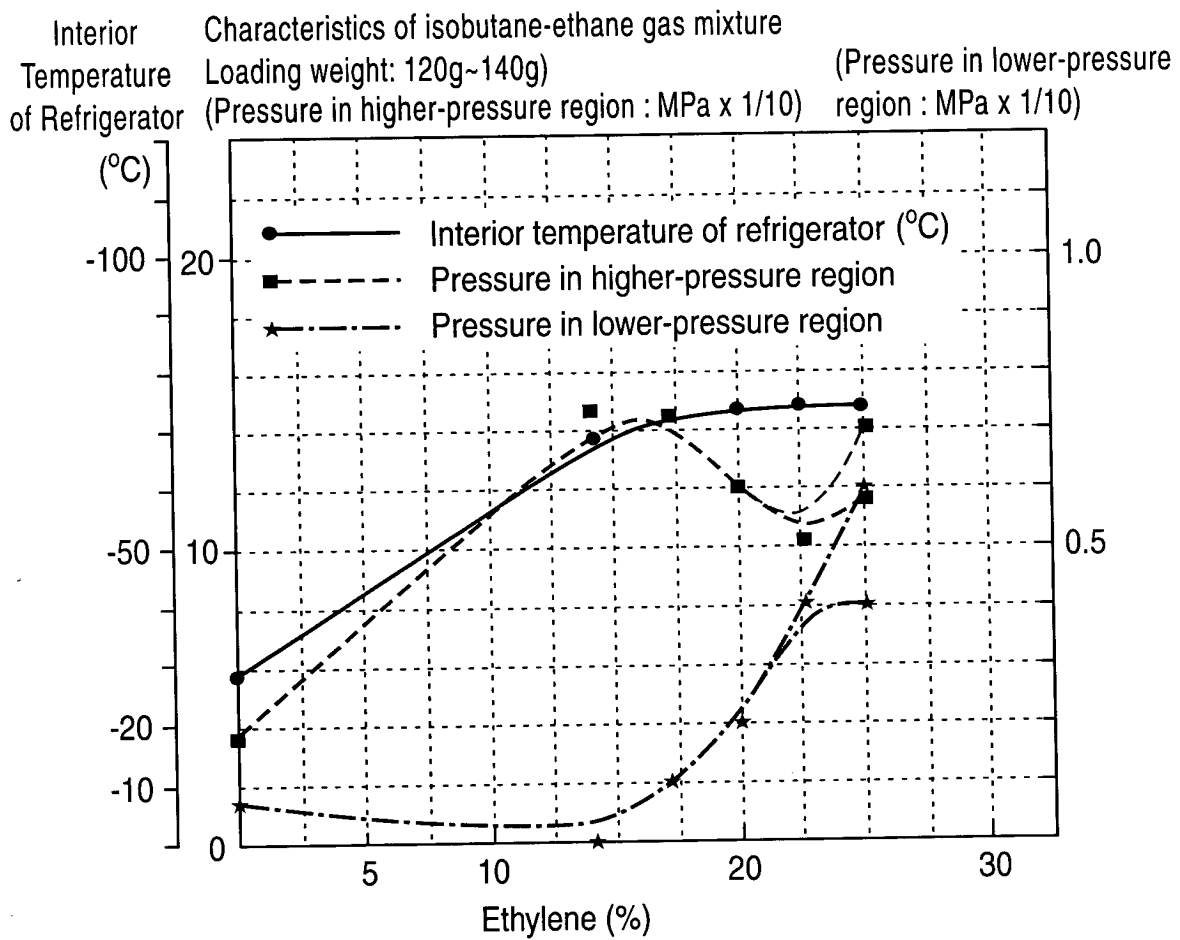
FIG.15



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FIG.16

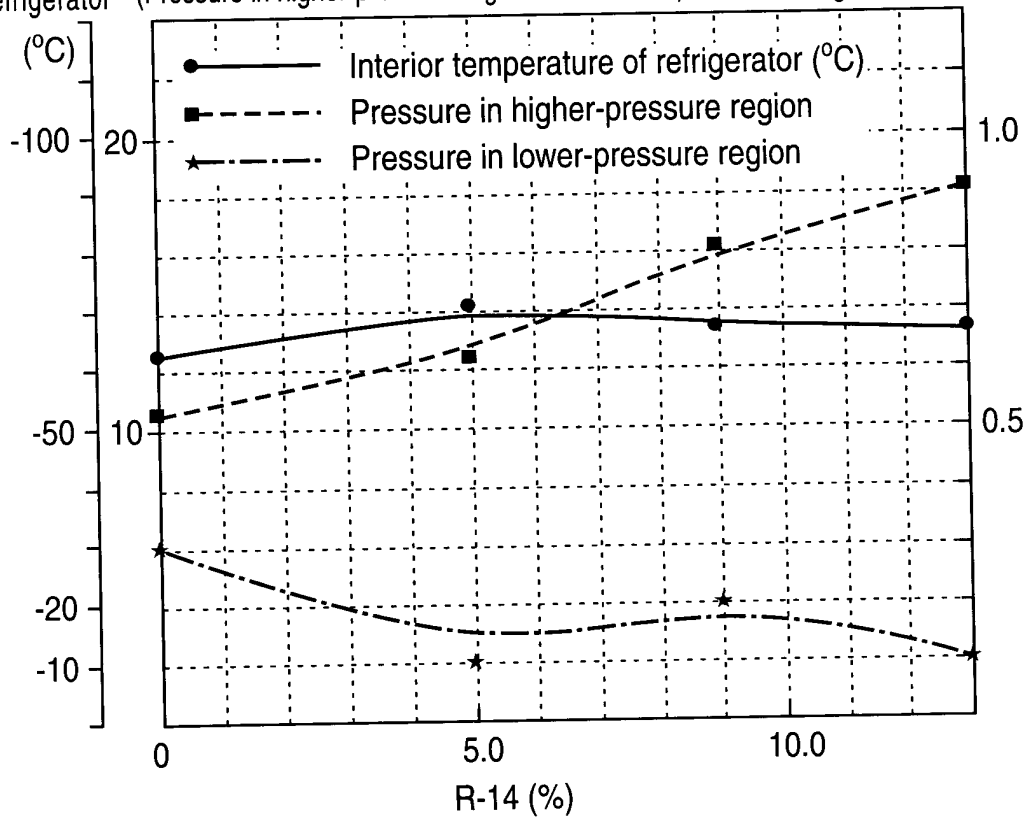


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FIG.17

Interior Isobutane / Ethane / R-14 ternary mixture  
Temperature Isobutane-ethane : 90/10 (loading weight: 100g~130g) (Pressure in lower-pressure  
of Refrigerator (Pressure in higher-pressure region : MPa x 1/10) region : MPa x 1/10)

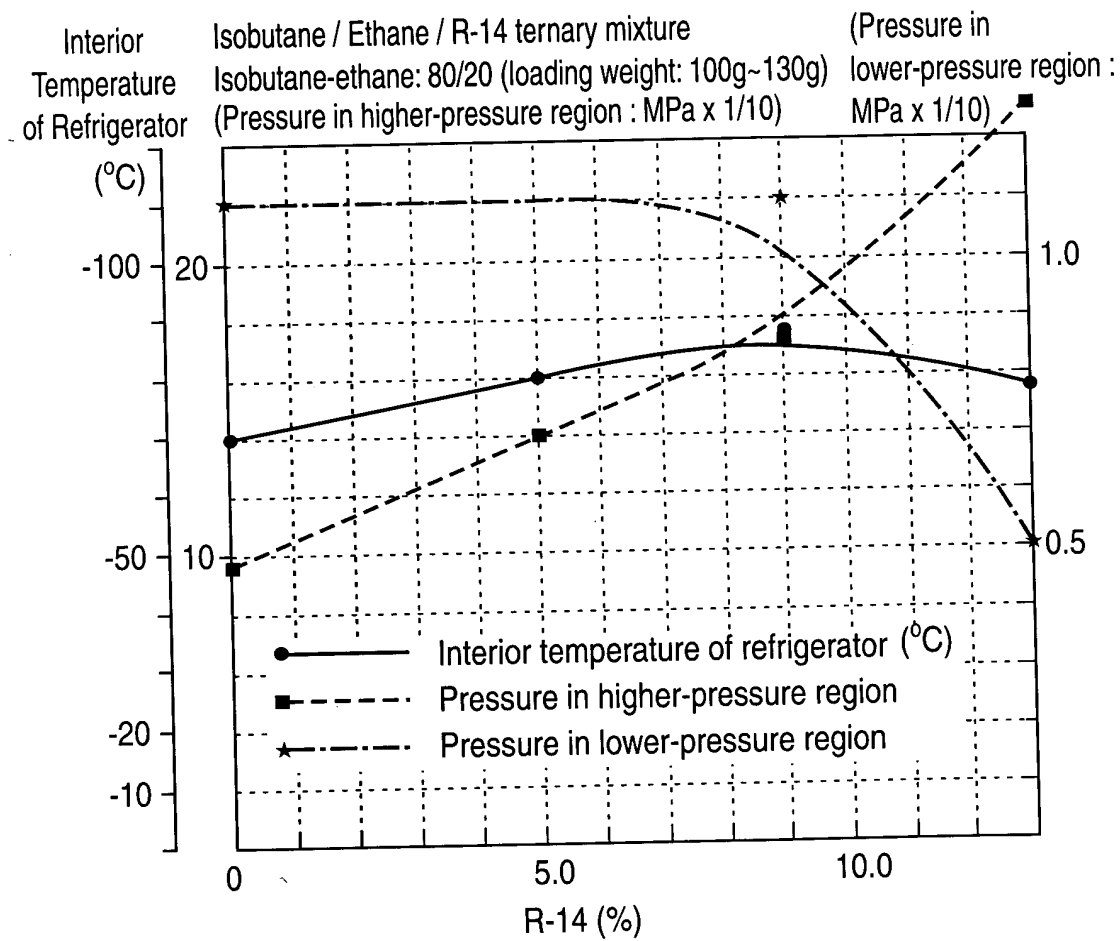




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FIG.18



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FIG.19

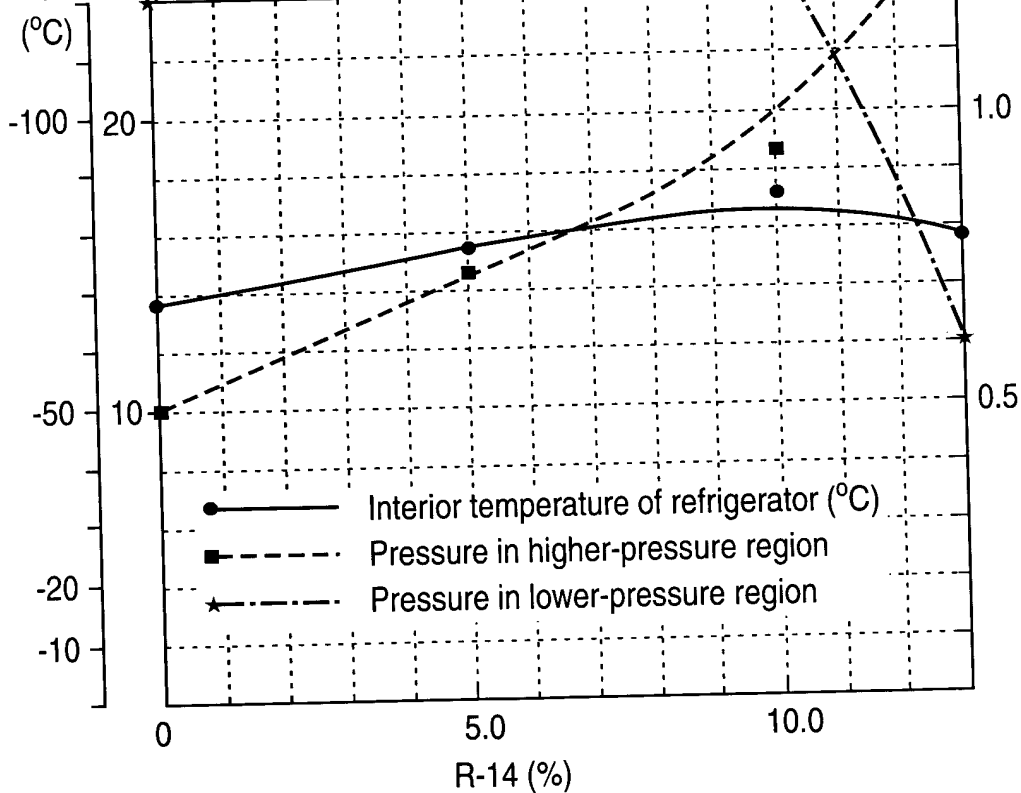
Isobutane / Ethane / R-14 ternary mixture

Isobutane-ethane : 70/30 (loading weight: 100g~130g)

(Pressure in higher-pressure  
region : MPa x 1/10)

(Pressure in lower-pressure region:  
MPa x 1/10)

Interior  
Temperature  
of Refrigerator  
(°C)

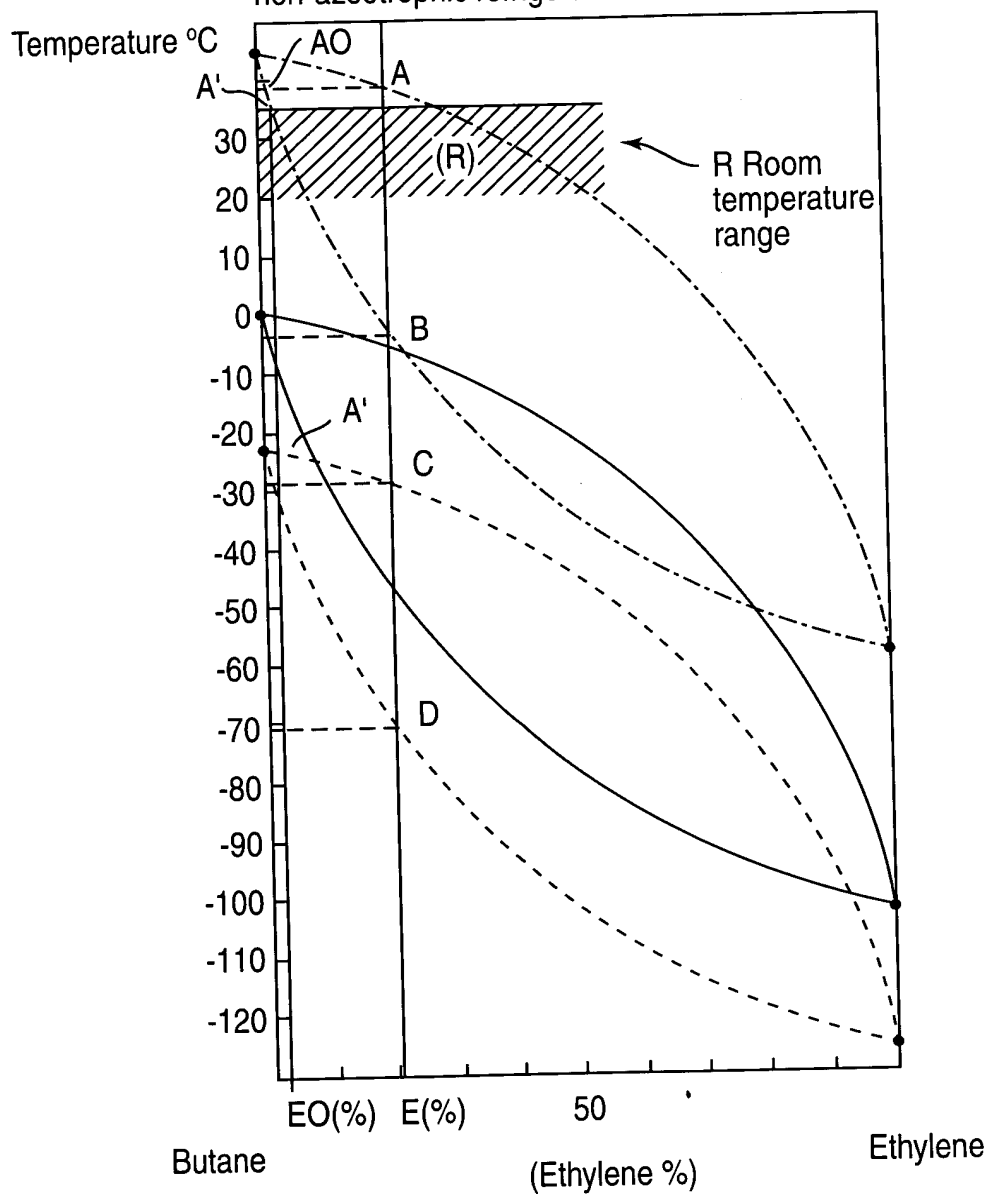


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FIG.20

Gas and liquid phase diagram of  
 non-azeotropic refrigerant mixture



- Gas and liquid phase lines in higher-pressure region
- Gas and liquid phase lines in atmosphere
- Gas and liquid phase lines in lower-pressure region